TROP, PRUNER & HU, P.C.

INTELLECTUAL PROPERTY LAW ATTORNEYS

1616 S. Voss Rd., Suite 750
Houston, Texas 77057-3621
Bus: (713) 468-8880
Fax: (713) 468-8883

# Fax

| | | | |
|---|---|---|---|
| **To:** | Examiner Paul Prebilic | **From:** | Rhonda L. Sheldon |
| **Company:** | USPTO Art Unit 3738 | **Date:** | November 3, 2008 |
| **Fax:** | (571) 273-8300 | **Pages:** | 6 (including this sheet) |
| **Your Re:** | 08/878,908 | **Our Re:** | VAS.0002US |

☐ **Urgent** ☐ **For Review** ☐ **Please Comment** ☐ **Please Reply** ☐ **Confirm Receipt**

## Reply Brief

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

| | | | | |
|---|---|---|---|---|
| Applicant: | Karl-Lutz Lauterjung | § | Group Art Unit: | 3738 |
| Serial No.: | 08/878,908 | § | Examiner: | Paul B. Prebilic |
| Filed: | June 19, 1997 | § | | |
| For: | Prosthetic Repair of Body Passages | § | Atty. Dkt. No.: | VAS.0002US |
| Customer No.: | 21906 | § | Confirmation No.: | 8837 |

Mail Stop **Appeal Brief-Patents**
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

## REPLY BRIEF

In response to the issues raised in the Examiner's Answer, the following Reply Brief is submitted.

Date of Deposit: November 3, 2008
Pursuant to Rule 1.8(a), I hereby certify that this document is being facsimile transmitted to the United States Patent and Trademark Office (Fax No. 571/273-8300) on the date indicated above.

Nancy Meshkoff

"Substantially Coplanar"

The application makes it clear that the loops of wire must necessarily be substantially coplanar. They are formed by wrapping around a mandrel. It is not seen how one could wrap loops of wire around a mandrel to form the annular ring shown in Figure 1 and shown in Figure 10 in abutting relationship and still the loops end up not being substantially coplanar. The Examiner simply states that it is "not clear that one winding will necessarily form a parallel loop to another winding". It is not clear to the Applicant how one could wrap windings around a mandrel, creating the structure shown in Figure 10, and the windings be anything but substantially parallel.

Referring to Figure 1, looking at the side view of the annular bundle, the rings are drawn as being parallel. The rings, starting from the inside to the outside, are four in number and they are drawn as concentric rings. Thus, they are clearly perfectly parallel.

Similarly, the closer-up drawing (Figure 8) shows a plurality of abutting wires which are clearly concentric and again are perfectly parallel. Finally, Figure 10 shows a plurality of abutting wires that are packed in close packing.

If the wires are closely packed, and are abutting, and are shown as being perfectly parallel in side view, it is not seen how the cross-section could show anything but either perfect parallel relationship or at least substantial parallel relationship. The only lack of parallel nature would be due to the very slight gaps between the individual windings shown in Figure 10.

Since the diameter $D_K$ shown in Figure 1 is greatly enlarged, and the device must fit with its plane transverse to the length of a blood vessel, the loops must be very tight. The structure shown in Figure 1 is greatly enlarged, as is the structure shown in Figure 10. The net result of the windings of relatively thin wire is to form a substantially coplanar bundle of loops of wire. The reason why one loop would be substantially coplanar with the other is that this is a function of forming the loops by wrapping them around a common mandrel. Necessarily, the loops are shown as being wrapped in a parallel fashion, and once they are wrapped in parallel fashion, so that the direction of wrapping is generally in a plane transverse to the length of the mandrel on which the windings are wrapped, there is no other result but that the windings are substantially parallel and the resulting structure includes substantially coplanar windings.

Therefore, the rejection should be reversed.

"Flattened Helical Coil"

Oddly, the Examiner relies on a definition of a helix (not in the record in this case) to make the argument that what is taught in the present application is not a helix. Of course, this argument is completely illogical because a helix is not claimed.

A flattened helical coil is claimed. As pointed out in the Appeal Brief and never addressed by the Examiner, it is impossible to wrap coils around a mandrel and not make something that is helical (*i.e.*, like a helix, even if not a perfect helix). Given the fact that the windings are all abutting, as shown in Figures 1 and 10 and as pointed out in the Appeal Brief, what is shown is clearly a flattened helical coil. In other words, the action of wrapping the wire around a mandrel produces a helical coil, and the fact that the windings are collapsed down on one another produces a flattened helical coil. Specifically, if one took a helical spring and simply collapsed it along its axis, a flattened helical coil results, completely consistent with the language currently used in the claims.

The Examiner's arguments concerning a helix merely set up a strawman argument irrelevant to the claimed limitation. Since the Examiner has not even addressed the actual claim limitation, the rejection should be reversed.

"Wraps Back", "Turned Back"

With respect to the limitation "wraps back" or "turns back", the Examiner says that the plain meaning of this language requires a change in direction such that there is a direction change.

The figures show that each of the loops is circular in nature. By definition, a circle is made up of continuing change of direction. Thus, if one takes a length of wire and wraps it back upon itself, one forms a loop wherein the loop is a circular length of a portion of a straight piece of wire. An additional portion of that straight piece of wire may extend beyond the initial end of the wire after wrapping back on itself. That length of wire may then be wrapped around in a circular arrangement (inherent in wrapping around a mandrel) so that it is "turned back" or "wrapped back" upon itself once again, until it passes the initial end of the wire.

Each of these circular loops, as shown in Figure 1, wraps back upon itself because, as pointed out by the Examiner, there is a change in direction along the length of each loop. Since there is no basis for the rejection, it should be reversed.

"Helical Coil of a Plurality of Closed Loops"

The Examiner contends that it is not clear that any of the loops close on themselves in 360 degrees. It is respectfully submitted that it is simply impossible to wrap the windings about a mandrel and form the compressed arrangement shown in Figures 1, 10, and 8 in any other way. The Examiner suggests no such geometry. One skilled in the art would, beyond all reasonable doubt, understand that when one wrapped the coils around a mandrel and then formed the flattened structure shown in the figures, where the wraps are compressed or flattened upon themselves, that a helical coil of plurality of closed loops is shown. In contrast, a C-shaped loop would not be a closed loop, but if the two ends of the C were brought together by coiling the structure, one or more closed loops would form.

The language is clear, simple, and direct. There is no basis for any rejection, and the outstanding rejection should therefore be reversed.

"Are Mutually Exclusive Features Being Claimed"

The Examiner seems to believe that the requirement that the loops be parallel and substantially coplanar is somehow inconsistent. He is wrong.

As an analogy, consider a building with a fire escape. On each floor there is a landing, and between successive floors there is a ramped metal ladder. Thus, each of the landings for each floor are parallel. If the floors and the fire escape were flattened, the landings could continue to be parallel, but as the ramped ladders flattened or folded, the structure would eventually result in landings that were substantially coplanar. Thus, something can be not perfectly coplanar and still be made up of portions that are parallel.

The analogy applies to wraps of wire. Each loop may be made up of a relatively planar portion connected by inclined portions that connect successive planar portions together in the same way that the ladders connect landings together. In the case of the tight bundle of loops, we have the analogy to the collapsed fire escape structure. Each of the relatively parallel portions are closely spaced from the one below, resulting in a substantially coplanar arrangement of parallel portions.

Therefore, the rejection should be reversed.

Respectfully submitted,

Date: November 3, 2008

Timothy N. Trop, Reg. No. 28,994
TROP, PRUNER & HU, P.C.
1616 S. Voss Road, Suite 750
Houston, TX 77057
713/468-8880 [Phone]
713/468-8883 [Fax]